Dr Plouffe’s research focuses on the pharmacology and signalling of G protein-coupled receptors (GPCRs). GPCRs represent the largest family of cell surface proteins (~800 members) and participate in the control of virtually all physiological functions by mediating most of our responses to hormones, neurotransmitters and environmental stimulants such as odorants, tastants and light. For this reason, GPCRs are the targets of ~50% of all prescribed drugs worldwide and the most important target of current pharmaceutical development.

The Plouffe group is primarily interested in 2 aspects of GPCR pharmacology and signalling:

1- **The spatial properties of GPCR signalling.** In other words, how does the subcellular location of these receptors shape their cellular response?

2- **The structural determinants of allostery and biased GPCR signalling.** In other words, which residues tune the receptor response up or down or preferentially select a signalling pathway over another?

“Our central goal is to increase our understanding of these important aspects of GPCR signalling to propose new and better pharmacotherapeutic options (increased efficacy and reduced side effects) for a wide range of diseases”.

Dr Plouffe has published her work in respected and high impact journals and her research has been recognized worldwide in prestigious Awards including Fellowships from the Canadian Institutes for Health Research and Diabetes Canada, as well as Awards from Diabetes UK, the Wellcome Trust and the UKRI Biotechnology and Biological Sciences Research Council.

**Join the team!**
The Plouffe group is welcoming applications from enthusiastic and ambitious students and postdoctoral researchers who wish to work at the cutting-edge of pharmacology and cellular signalling. Please contact Dr Bianca Plouffe for further information (b.plouffe@qub.ac.uk).

**Current projects in the lab**

1- To investigate the mechanisms translating Gq signalling from endosomes.
2- To delineate the role of secreted Frizzled related protein 2 in the pathogenesis of diabetic retinopathy.
3- To investigate the role of US28 subcellular location in its oncomodulatory properties in the context of glioblastoma.
4- To understand allostERIC and biased GPCR signalling by the NTSR1, CCR4, and PAR2.

**Past and present group members**

**Postdoctoral Research Fellows**
- Dr Carole Daly (2023-present)
- Dr Kanhaya Lal (2021-2023; co-supervision)

**Technicians**
- Shane Houston (2019-2020)

**PhD Students**
- Adam Wright (2023-present; DfE Scholarship)
- Kara Gizmul (2022-present; co-supervision)
- Tianyi Ding (2019-present; co-supervision)
- Akim Guseynov (2019-present; co-supervision, CIITA-GENS Marie Curie scholarship)
- Carole Daly (2019-2022; DfE Scholarship)

**MSc Students**
- Adam Wright (MSc in Exp Medicine 2022-2023)
- Stephen Copeland (MSc in Exp Medicine 2019-2020)

**BSc Students**
- Niamh Jonston (Biomedical Sciences 2023-2024)
- Connor McGill (Biological Sciences 2023-2024)
- Curtis Buchanan (Biological Sciences 2023)
- Padhraig McNicoll (Biomedical Sciences 2022-2023)
- Adam McShane (Biomedical Sciences 2019-2020)

**Summer Students**
- Ashraf Mahmoud 2023 (Medical School, Kilimanjaro Christian Medical University College, Tanzania)
- Eloise Heulet 2019 (Advanced Biology, Université de Nantes, France)
- Lenka Toderova 2019 (Nuffield Research Placement)
- Cole Roberts 2019 (Medical School, University of Dundee, UK)

**Projects**

**R2636CEM: Defining key mechanisms underlying NOX4 signalling in endothelial colony-forming cells towards improved vasoreparative capacity in ischaemic disease**
Grieve, D., PI, School of Medicine, Dentistry and Biomedical Sciences
Medina, R., CoI, School of Medicine, Dentistry and Biomedical Sciences
Plouffe, B., CoI, School of Medicine, Dentistry and Biomedical Sciences
Simpson, D., CoI, School of Medicine, Dentistry and Biomedical Sciences
02/09/2019 → …
Project: Research

**R1719CEM: Investigation of the mechanisms underlying endosomal Gq signalling**
Plouffe, B., PI, School of Medicine, Dentistry and Biomedical Sciences
19/09/2022 → …
Collaborators New York University, University of Oxford, University of Nottingham
Project: Research

**R2552CEM: Non-canonical G protein signaling: toward new therapeutic avenues**
Plouffe, B., PI, School of Medicine, Dentistry and Biomedical Sciences
04/01/2019 → 17/10/2021
Project: Research

**R2639CEM: Non-canonical G protein signalling: toward new therapeutic avenues for type 2 diabetes**
Plouffe, B., PI, School of Medicine, Dentistry and Biomedical Sciences
11/09/2019 → …
Collaborators Columbia University
Project: Research
Prizes and Awards

2022

New Investigator Award from the Biotechnology and Biological Sciences Research Council (£450,733)
Plouffe, Bianca (Recipient), 08 Sep 2022
Prize: Other distinction

2019

Early-Career Small Grant for Basic Scientist from Diabetes UK (£15,000)
Plouffe, Bianca (Recipient), 11 Sep 2019
Prize: Other distinction

British Heart Foundation Research Grant (co-I, £282,730)
Plouffe, Bianca (Recipient), 02 Sep 2019
Prize: Other distinction

2018

Seed Award from the Wellcome Trust (£106,848)
Plouffe, Bianca (Recipient), 21 Dec 2018
Prize: Other distinction

Vice-Chancellor's Fellowship from Queen's University Belfast (U.K.) (£202,000)
Plouffe, Bianca (Recipient), 06 Nov 2018
Prize: Fellowship awarded competitively

2017

Travel Award from the Institute for Research in Immunology and Cancer (Canada) ($1000)
Plouffe, Bianca (Recipient), Jun 2017
Prize: Prize (including medals and awards)

2016

Étudiants-Chercheurs Étoiles Award from Fonds de la Recherche du Québec en Santé (Canada) ($1000)
Plouffe, Bianca (Recipient), Oct 2016
Prize: Prize (including medals and awards)

Postdoctoral Fellowship Award from Diabetes Canada ($80,000)
Plouffe, Bianca (Recipient), Jul 2016
Prize: Fellowship awarded competitively

2012

Postdoctoral Fellowship Award from Fonds de la Recherche du Québec en Santé (Canada) ($90,000) - declined
Plouffe, Bianca (Recipient), Apr 2012
Prize: Fellowship awarded competitively

Postdoctoral Fellowship Award from the Canadian Institutes for Health Research ($135,000)
Plouffe, Bianca (Recipient), Apr 2012
Prize: Fellowship awarded competitively
2010

Tuition Fee Scholarship from University of Ottawa (Canada) ($5,500)
Plouffe, Bianca (Recipient), Sep 2010
Prize: Fellowship awarded competitively

Best Poster Award at the 2nd Brain Health Research Day from University of Ottawa (Canada) ($100)
Plouffe, Bianca (Recipient), Jun 2010
Prize: Prize (including medals and awards)

2009

Best Poster Award at the 1st Brain Health Research Day from University of Ottawa (Canada) ($100)
Plouffe, Bianca (Recipient), Jun 2009
Prize: Prize (including medals and awards)

2008

Graduate/Postdoctoral Travel Award from the American Society for Biochemistry & Molecular Biology (USA) ($1000)
Plouffe, Bianca (Recipient), Apr 2008
Prize: Prize (including medals and awards)

2007

Doctoral Studentship Award from Fonds de la Recherche du Québec en Santé (Canada) ($60,000)
Plouffe, Bianca (Recipient), Sep 2007
Prize: Fellowship awarded competitively

Excellence Scholarship from University of Ottawa (Canada) ($18,000)
Plouffe, Bianca (Recipient), Sep 2007
Prize: Fellowship awarded competitively

2005

Best Poster Award from Société de Neuroendocrinologie (France) (€500)
Plouffe, Bianca (Recipient), May 2005
Prize: Prize (including medals and awards)

2004

Best Oral Presentation Award from Équipe de Physiopathologie Endocrinienne (Canada) ($200)
Plouffe, Bianca (Recipient), Sep 2004
Prize: Prize (including medals and awards)

Research outputs

β-arrestin-dependent and -independent endosomal G protein activation by the vasopressin type 2 receptor. / Daly, Carole ; Guseinov, Akim Abdul ; Hahn, Hyunggu et al.
Research output: Contribution to journal › Article › peer-review
Gαq signalling from endosomes: a new conundrum. / Daly, Carole; Plouffe, Bianca.
Research output: Contribution to journal › Review article › peer-review

Secreted frizzled related protein 2: a new target for diabetic retinopathy. / Wright, Adam; Barabas, Peter; Curtis, Tim et al.
Research output: Contribution to conference › Poster › peer-review

Secreted frizzled related protein 2: a new target for diabetic retinopathy. / Wright, Adam; Barabas, Peter; Curtis, Tim et al.
Research output: Contribution to conference › Poster › peer-review

Secreted frizzled related protein 2: a new target for diabetic retinopathy. / Wright, Adam; Barabas, Peter; Curtis, Tim et al.
Research output: Contribution to conference › Poster › peer-review

Mapping allosteric sites on the chemokine receptor 4. / Ding, Tianyi; Guseynov, Abdul-Akim; Plouffe, Bianca et al.
2023. Poster session presented at 11th Adrenoceptor Symposium: Adrenoceptors and GPCR Signalling (satellite meeting of the 19th World Congress of Basic & Clinical Pharmacology 2023), Glasgow, United Kingdom.
Research output: Contribution to conference › Poster › peer-review

Membrane-facing allosteric sites of GPCRs: search, validation and opensource virtual screening for NTSR1. / Guseynov, Abdul-Akim; Karlov, Dmitry; Garland, Stephen et al.
2023. Poster session presented at 11th Adrenoceptor Symposium: Adrenoceptors and GPCR Signalling (satellite meeting of the 19th World Congress of Basic & Clinical Pharmacology 2023), Glasgow, United Kingdom.
Research output: Contribution to conference › Poster › peer-review

Structure-based design of PAR2 allosteric modulators. / Lal, Kanhaya; Guseynov, Abdul-Akim; Plouffe, Bianca et al.
2023. Poster session presented at 11th Adrenoceptor Symposium: Adrenoceptors and GPCR Signalling (satellite meeting of the 19th World Congress of Basic & Clinical Pharmacology 2023), Glasgow, United Kingdom.
Research output: Contribution to conference › Poster › peer-review

Structure-based design of PAR2 allosteric modulators. / Lal, Kanhaya; Guseynov, Abdul-Akim; Plouffe, Bianca et al.
Research output: Contribution to conference › Poster › peer-review

G protein selectivity and gene regulation by US28 are shaped by the presence or absence of chemokines. / Daly, Carole; Plouffe, Bianca.
Research output: Contribution to conference › Poster › peer-review

Michaelis-Menten quantification of ligand signalling bias applied to the promiscuous Vasopressin V2 receptor. / Heydenreich, Franziska M.; Plouffe, Bianca; Rizk, Aurelien et al.
In: Molecular Pharmacology, Vol. 102, No. 2, 01.09.2022, p. 139-149.
Research output: Contribution to journal › Article › peer-review
Molecular simulations studies to detect allosteric sites of neurotensin receptor 1. / Guseynov, Abdul-Akim; Karlov, Dmitry; Garland, Stephen et al.
Research output: Contribution to conference › Poster › peer-review

Probe-confined MD simulations for the detection of allosteric sites on neurotensin receptor 1. / Guseynov, Abdul-Akim; Karlov, Dmitry; Garland, Stephen et al.
Research output: Contribution to conference › Poster › peer-review

Neurotensin receptor 1 allosteric sites explored by probe molecular dynamics simulations and BRET-based assays. / Guseynov, Abdul-Akim; Karlov, Dmitry; Garland, Stephen et al.
2022. Poster session presented at 6th European Research Network on Signal Transduction Conference 2022, virtual, online.
Research output: Contribution to conference › Poster › peer-review

G protein selectivity and gene regulation by US28 are shaped by the presence or absence of chemokines. / Daly, Carole; Heukers, Raymond; Evergren, Emma et al.
2022. Poster session presented at 6th European Research Network on Signal Transduction Conference 2022, virtual, online.
Research output: Contribution to conference › Poster › peer-review

Structural elements directing G proteins and β-arrestin interactions with the human melatonin type 2 receptor revealed by natural variants. / Plouffe, Bianca; Karamitri, Angeliki; Flock, Tilman et al.
Research output: Contribution to journal › Article › peer-review

Identification of Key Regions Mediating Human Melatonin Type 1 Receptor Functional Selectivity Revealed by Natural Variants. / Hegron, Alan; Huh, Eunna; Deupi, Xavier et al.
Research output: Contribution to journal › Article › peer-review

Optimising BRET Assays to Measure NTSR1 Signalling Bias. / Guseynov, Abdul-Akim; Garland, Stephen; Tikhonova, Irina et al.
2021. Poster session presented at 5th European Research Network on Signal Transduction, Bari, Italy.
Research output: Contribution to conference › Poster › peer-review

The viral GPCR US28 activates Gq from early endosomes: potential for alternative therapeutics for glioblastoma. / Daly, Carole; Heukers, Raymond; Evergren, Emma et al.
Research output: Contribution to conference › Poster › peer-review

Human MC4R variants affect endocytosis, trafficking and dimerization revealing multiple cellular mechanisms involved in weight regulation. / Brouwers, Bas; Mendes de Oliveira, Edson; Marti-Solano, Maria et al.
In: Cell Reports, Vol. 34, No. 12, 108862, 23.03.2021.
Research output: Contribution to journal › Article › peer-review

Circadian, sleep and caloric intake phenotyping in Type 2 Diabetes patients with rare melatonin receptor 2 mutations and controls: A Pilot Study. / Imam, Akram; C. Winnebeck, Eva; Buchholz, Nina et al.
Research output: Contribution to journal › Article › peer-review

The constitutive activity of the viral-encoded G protein-coupled receptor US28 supports a complex signalling network contributing to cancer development. / Daly, Carole; J Smit, Martine; Plouffe, Bianca.
In: Biochemical Society Transactions, Vol. 48, No. 4, 28.08.2020, p. 1493-1504.
Research output: Contribution to journal › Review article › peer-review
FASEB Science Research Conferences on GRKs and Arrestins: From Structure to Disease (USA) - Functional characterization of natural variants of melatonin type 1 receptor. / Hégron, Alan; Plouffe, Bianca; Gao, Wenwen et al. 2017.
Research output: Contribution to conference › Poster › peer-review

FASEB Science Research Conferences on GRKs and Arrestins: From Structure to Disease (USA) - Human melatonin type 2 receptor structural insights revealed by natural variants. / Plouffe, Bianca; Karamitri, Angeliki; Flock, Tilman et al. 2017.
Research output: Contribution to conference › Poster › peer-review

Institute for Research in Immunology and Cancer's 7th Scientific Day, University of Montreal (Canada) - Functional characterization of natural variants of melatonin type 1 receptor. / Hégron, Alan; Plouffe, Bianca; Bonnefond, Amélie et al. 2017.
Research output: Contribution to conference › Poster › peer-review

Purinergic receptor transactivation by the β2-adrenergic receptor increases intracellular Ca\(^{2+}\) in nonexcitable cells. / Stallaert, Wayne; Van Der Westhuizen, Emma T.; Schönegge, Anne Marie et al.
In: Molecular Pharmacology, Vol. 91, No. 5, 06.05.2017, p. 533-544.
Research output: Contribution to journal › Article › peer-review

Discovery of G Protein-Biased Dopaminergics with a Pyrazolo[1,5-a]pyridine Substructure. / Möller, Dorothee; Banerjee, Ashutosh; Uzuneser, Taygun C. et al.
Research output: Contribution to journal › Article › peer-review

Distinct conformations of GPCR-β-arrestin complexes mediate desensitization, signaling, and endocytosis. / Cahill, Thomas J.; Thomsen, Alex R.B.; Tarrasch, Jeffrey T. et al.
Research output: Contribution to journal › Article › peer-review

Molecular Pharmacology Gordon Research Conference (Italy) - Human melatonin type 2 receptor structural insights revealed by natural variants. / Plouffe, Bianca; Karamitri, Angeliki; Flock, Tilman et al. 2017.
Research output: Contribution to conference › Poster › peer-review

Molecular Pharmacology Gordon Research Conference (Italy) - Melatonin MT2 receptor variants associated with type 2 diabetes affect specific subsets of the receptor signaling modalities. / Jockers, Ralf; Karamitri, Angeliki; Plouffe, Bianca et al. 2017.
Research output: Contribution to conference › Poster › peer-review

Molecular Pharmacology Gordon Research Conference (Italy) - The inner workings of a GPCR: Molecular basis for biased G protein activation and β-arrestin recruitment. / Heidenreich, Franziska; Plouffe, Bianca; Deupi, Xavier et al. 2017.
Research output: Contribution to conference › Poster › peer-review

17th GPCR Retreat (USA) - Functional characterization of natural variants of melatonin type 1 receptor. / Hégron, Alan; Plouffe, Bianca; Bonnefond, Amélie et al. 2016.
Research output: Contribution to conference › Poster › peer-review

17th GPCR Retreat (USA) - Lessons from signaling signature of 40 natural mutations found in human melatonin type 2 receptor. / Plouffe, Bianca; Karamitri, Angeliki; Bonnefond, Amélie et al. 2016.
Research output: Contribution to conference › Poster › peer-review
41th Symposium on Hormones and Cell Regulation (France) - The inner workings of a GPCR: Molecular basis for biased G protein activation and b-arrestin recruitment. / Heidenreich, Franziska; Flock, Tilman; Plouffe, Bianca et al. 2016.
Research output: Contribution to conference › Poster › peer-review

52th European Association for the Study of Diabetes (Germany) - Deep functional profiling of 40 MTNR1B mutants reveals the involvement of G1 and Gz proteins in the association between melatonin signaling and type 2 diabetes. / Bonnefond, Amélie; Karamitri, Angeliki; Plouffe, Bianca et al. 2016.
Research output: Contribution to conference › Poster › peer-review

GPCR-G Protein-β-Arrestin Super-Complex Mediates Sustained G Protein Signaling. / Thomsen, Alex R.B.; Plouffe, Bianca; Cahill, Thomas J. et al.
Research output: Contribution to journal › Article › peer-review

Rencontre Louis-Philippe-Bouthillier (Canada) - Identification des signatures de signalisation des 40 polymorphismes nucléotidiques simples retrouvés au niveau du récepteur à la mélatonine de type 2: du concept de signalisation biaisée par l’agoniste à celui de la signalisation biaisée par les mutations. / Plouffe, Bianca; Karamitri, Angeliki; Jockers, Ralf et al. 2016.
Research output: Contribution to conference › Poster › peer-review

Mapping physiological G protein-coupled receptor signaling pathways reveals a role for receptor phosphorylation in airway contraction. / Bradley, Sophie J.; Wiegman, Coen H.; Iglesias, Max Maza et al.
Research output: Contribution to journal › Article › peer-review

Keystone meeting: G protein-coupled receptor: Structure, signalling and drug discovery (USA) - Understanding biased signalling of peptide ligands at Vasopressin V2 receptor. / Heidenreich, Franziska; Plouffe, Bianca; Milic, Dalibor et al. 2016.
Research output: Contribution to conference › Poster › peer-review

Institute for Research in Immunology and Cancer Student Recruitment Event (Canada) - Determination of signaling signature of 40 SNPs found in melatonin type 2 receptor: from ligand-bias signaling to mutation-bias signaling. / Plouffe, Bianca; Karamitri, Angeliki; Jockers, Ralf et al. 2015.
Research output: Contribution to conference › Poster › peer-review

ASCEPT-MPGPCR Joint Scientific Meeting (Australia) - Determination of signaling signature of 40 SNPs found in melatonin type 2 receptor: from ligand-bias signaling to mutation-bias signaling. / Plouffe, Bianca; Karamitri, Angeliki; Jockers, Ralf et al. 2014.
Research output: Contribution to conference › Poster › peer-review

15th GPCR Retreat (Canada) - Determination of signaling signature of 40 SNPs found in melatonin type 2 receptor: from ligand-bias signaling to mutation-bias signaling. / Plouffe, Bianca; Karamitri, Angeliki; Jockers, Ralf et al. 2014.
Research output: Contribution to conference › Poster › peer-review

3rd Annual meeting of the GDR-3545 on G protein-coupled receptors (France) - Functional profiling of rare MT2 melatonin receptor mutants associated with type 2 diabetes. / Karamitri, Angeliki; Plouffe, Bianca; Chen, Min et al. 2014.
Research output: Contribution to conference › Poster › peer-review
Constitutive activities and inverse agonism in dopamine receptors. / Zhang, Boyang; Albaker, Awatif; Plouffe, Bianca et al.
Research output: Chapter in Book/Report/Conference proceeding › Chapter

XXVIIe Symposium Groupe d’étude des protéines membranaires (Canada) - Determinants of melatonin type 2 receptor involved in inhibition of melatonin type 1 receptor-mediated calcium response. Lessons from mutations found in type 2 diabetes patients. / Plouffe, Bianca; Jockers, Ralf; Bouvier, Michel.
2013.
Research output: Contribution to conference › Poster › peer-review

Molecular Pharmacology Gordon Research Conference (Italy) - Determinants of melatonin type 2 receptor involved in inhibition of melatonin type 1 receptor-mediated calcium response. Lessons from mutations found in type 2 diabetes patients. / Plouffe, Bianca; Jockers, Ralf; Bouvier, Michel.
2013.
Research output: Contribution to conference › Poster › peer-review

Functional analysis of human D1 and D5 dopaminergic G protein-coupled receptors : Lessons from mutagenesis of a conserved serine residue in the cytosolic end of transmembrane region 6. / Plouffe, Bianca; Tiberi, Mario.
Research output: Chapter in Book/Report/Conference proceeding › Chapter

The third intracellular loop of D1 and D5 dopaminergic receptors dictates their subtype-specific PKC-induced sensitization and desensitization in a receptor conformation-dependent manner. / Plouffe, Bianca; Yang, Xiaodi; Tiberi, Mario.
Research output: Contribution to journal › Article › peer-review

11th GPCR Retreat (Canada) - A deletion approach highlights unexpected subtype-specific roles of the third intracellular loop of D1-like dopaminergic receptors: revisiting the extended ternary complex model. / Charrette, Andrew; Plouffe, Bianca; Liang, Binhui et al.
2010.
Research output: Contribution to conference › Poster › peer-review

Selective angiotensin II AT 2 receptor agonists with reduced CYP 450 inhibition. / Mahalingam, A. K.; Wan, Yiqian; Murugaiah, A. M.S. et al.
In: Bioorganic and Medicinal Chemistry, Vol. 18, No. 12, 15.06.2010, p. 4570-4590.
Research output: Contribution to journal › Article › peer-review

2nd Annual Brain Health Research Day (Canada) - A comprehensive model of sensitization and desensitization of GPCRs by PKC: Insight from dopamine D1-like receptors. / Plouffe, Bianca; Tiberi, Mario.
2010.
Research output: Contribution to conference › Poster › peer-review

2nd Annual Brain Health Research Day (Canada) - Regulation of the D3 dopaminergic receptor and adenylyl cyclase type 5 signaling complex by phosphatases. / Yang, Xiaodi; Plouffe, Bianca; Sedaghat, Keyvan et al.
2010.
Research output: Contribution to conference › Poster › peer-review

Probing the constitutive activity among dopamine D1 and D5 receptors and their mutants. / Plouffe, Bianca; D'Aoust, Jean Philippe; Laquerre, Vincent et al.
Research output: Chapter in Book/Report/Conference proceeding › Chapter

1st Annual Brain Health Research Day (Canada) - Evidence for a PKC/phorbol ester-dependent toggle switch regulating GPCR responsivenes: Insight from dopaminergic D1-like receptors. / Plouffe, Bianca; Tiberi, Mario.
2009.
Research output: Contribution to conference › Poster › peer-review
1st Annual Brain Health Research Day (Canada) - Regulation of the dopamine D3 receptor and adenylyl cyclase type 5 signalosome by a sodium orthovanadate-sensitive pathway. / Yang, Xiaodi; Plouffe, Bianca; Sedaghat, Keyvan et al. 2009.

Research output: Contribution to conference › Poster › peer-review

Molecular Pharmacology Gordon Research Conference (Italy) - Evidence for a PKC/phorbol ester-dependent toggle switch regulating GPCR responsiveness: insight from dopaminergic D1-like receptors. / Plouffe, Bianca; Tiberi, Mario. 2009.

Research output: Contribution to conference › Poster › peer-review

9th GPCR Retreat (Canada) - Five serine residues located on the third intracellular loop of human D5 dopaminergic receptor shape the extent of protein kinase C-mediated D5 desensitization. / Plouffe, Bianca; Tiberi, Mario. 2008.

Research output: Contribution to conference › Poster › peer-review

9th GPCR Retreat (Canada) - Regulation of the dopamine D3 receptor and adenylyl cyclase type 5 signalosome by a sodium orthovanadate-sensitive pathway. / Yang, Xiaodi; Plouffe, Bianca; Sedaghat, Keyvan et al. 2008.

Research output: Contribution to conference › Poster › peer-review

Experimental Biology 2008 (USA) - Opposite regulation of human D1-like dopaminergic responsiveness by protein kinase C is shaped by two critical serine residues of the third intracellular loop of human D5 dopaminergic receptor. / Plouffe, Bianca; Tiberi, Mario. 2008.

Research output: Contribution to conference › Poster › peer-review

In vitro irradiation of basement membrane enhances the invasiveness of breast cancer cells. / Paquette, B.; Baptiste, C.; Therriault, H. et al.


Research output: Contribution to journal › Article › peer-review

11th Annual Y.D. Lapierre Resident Research Day (Canada) - Structural determinants of human D1 and D5 dopaminergic receptors underlying PKC-mediated subtype-specific regulation. / Plouffe, Bianca; Tiberi, Mario. 2007.

Research output: Contribution to conference › Poster › peer-review

Selective angiotensin II AT receptor agonists devoid of the imidazole ring system. / Murugaiah, A. M.S.; Wallinder, Chalotta; Mahalingam, A. K. et al.


Research output: Contribution to journal › Article › peer-review

8th GPCR Retreat (Canada) - Structural determinants of human D1 and D5 dopaminergic receptors underlying PKC-mediated subtype-specific regulation. / Plouffe, Bianca; Tiberi, Mario. 2007.

Research output: Contribution to conference › Poster › peer-review

10th Annual Y.D. Lapierre Resident Research Day (Canada) - Study of the differential regulation of the human dopamine D1 and D5 receptor responsiveness by phorbol-12-myristate-13-acetate. / Plouffe, Bianca; Tiberi, Mario. 2006.

Research output: Contribution to conference › Poster › peer-review

Selective angiotensin II AT receptor agonists : Arylbenzylimidazole structure-activity relationships. / Wu, Xiongyu; Wan, Yiqian; Mahalingam, A. K. et al.


Research output: Contribution to journal › Article › peer-review
7th GPCR Retreat (USA) - Study of the differential regulation of the human dopamine D1 and D5 receptor responsiveness by phorbol-12-myristate-13-acetate. / Plouffe, Bianca; Tiberi, Mario. 2006.

Role of tyrosine kinase receptors in angiotensin II AT_2 receptor signaling: Involvement in neurite outgrowth and in p42/p44mapk activation in NG108-15 cells. / Plouffe, Bianca; Guimond, Marie Odile; Beaudry, Hélène et al.

Short pseudopeptides containing turn scaffolds with high AT_2 receptor affinity. / Georgsson, Jennie; Rosenström, Ulrika; Wallinder, Charlotta et al.

Angiotensin II pseudopeptides containing 1,3,5-trisubstituted benzene scaffolds with high AT_2 receptor affinity. / Georgsson, Jennie; Sköld, Christian; Plouffe, Bianca et al.

New selective AT_2 receptor ligands encompassing a γ-turn mimetic replacing the amino acid residues 4-5 of angiotensin II act as agonists. / Rosenström, Ulrika; Sköld, Christian; Plouffe, Bianca et al.

Design, synthesis, and biological evaluation, of the first selective nonpeptide AT_2 receptor agonist. / Wan, Yiqian; Wallinder, Charlotta; Plouffe, Bianca et al.

32e Colloque de la Société de Neuroendocrinologie (France) - Rôle du récepteur TrkA dans la signalisation induite par le récepteur AT2 de l’angiotensine II. Implication dans l’activation de p42/p44mapk et l’elongation neuritique des cellules NG10815. / Plouffe, Bianca; Gendron, Louis; Payet, Marcel et al. 2004.

Activities

2023

Imperial Membrane Receptor Network Seminar Series - Imperial College London - Investigation of the role of US28 subcellular location in the upregulation of oncomodulatory genes in the context of glioblastoma
Bianca Plouffe (Invited speaker)
06 Jun 2023
Activity: Talk or presentation types › Public lecture/debate/seminar

Medical Mini Interviews examiner
Bianca Plouffe (Examiner)
15 Mar 2023
Activity: Examination types › Other examination
Seminar Series - School of Molecular Bioscience, University of Glasgow - Investigation of the role of US28 sub cellular location in the up regulation of oncomodulatory genes in the context of glioblastoma
Bianca Plouffe (Invited speaker)
08 Mar 2023
Activity: Talk or presentation types › Public lecture/debate/seminar

Northern Ireland Science Festival
Bianca Plouffe (Participant)
18 Feb 2023
Activity: Participating in or organising an event types › Participation in Festival/Exhibition

2022

2nd iGPCRnet International Research Network on GPCRs meeting - The viral-encoded US28 chemokine receptor contributing to glioblastoma constitutively activates Gq from endosomes: does signalling location matter?
Bianca Plouffe (Invited speaker)
30 Sep 2022 → 01 Oct 2022
Activity: Talk or presentation types › Invited or keynote talk at national or international conference

6th European Research Network on Signal Transduction conference (online) - The viral-encoded US28 receptor contributing to glioblastoma development constitutively activates Gq from early endosomes
Bianca Plouffe (Invited speaker)
30 Mar 2022
Activity: Talk or presentation types › Invited or keynote talk at national or international conference

6th European Research Network on Signal Transduction Conference 2022
Bianca Plouffe (Participant)
28 Mar 2022 → 31 Mar 2022
Activity: Participating in or organising an event types › Participation in conference

2021

Medical Mini Interviews examiner
Bianca Plouffe (Examiner)
13 Dec 2021
Activity: Examination types › Other examination

Seminar Series - Dept. of Molecular Pathobiology, New York University College of Dentistry - The endosomal Gq signalling by the viral chemokine receptor US28: toward a new target for glioblastoma?
Bianca Plouffe (Invited speaker)
26 May 2021
Activity: Talk or presentation types › Public lecture/debate/seminar

2020

Seminar Series - Dept. of Pharmacy, Pharmaceutical Sciences & Biology, Baha'i Institute for Higher Education (Iran) - Understanding the role of US28-mediated endosomal signalling in glioblastoma multiforme: toward a new therapeutic solution.
Bianca Plouffe (Invited speaker)
29 Nov 2020
Activity: Talk or presentation types › Public lecture/debate/seminar

Medical Mini Interviews examiner
Bianca Plouffe (Examiner)
11 Mar 2020
Activity: Examination types › Other examination

2019

**Inaugural Meeting of the European Research Network in Signal Transduction - GPCR Pharmacology: Activation, Signalling and Drug Design**
Bianca Plouffe (Participant)
28 Oct 2019 → 30 Oct 2019
Activity: Participating in or organising an event types › Participation in conference

**Biochemical Society - Cell Signaling and Intracellular Trafficking in Cancer Biology: Interplay, Targeting and Therapy (Italy) - Endosomal G protein signalling by US28 as a new target for glioblastoma multiforme**
Bianca Plouffe (Invited speaker)
23 Oct 2019
Activity: Talk or presentation types › Invited or keynote talk at national or international conference

**GDR3545 GPCR International Meeting (France)**
Bianca Plouffe (Participant)
09 Oct 2019 → 11 Oct 2019
Activity: Participating in or organising an event types › Participation in conference

**Annual Research Symposium from the Centre of Membrane Proteins and Receptors (U.K.)**
Bianca Plouffe (Participant)
26 Sep 2019
Activity: Participating in or organising an event types › Participation in conference

2018

**Seminar Series - Dept. of Pharmaceutical Chemistry, Philipps University Marburg (Germany) - GPCR, G protein and b-arrestin: three dancers dancing together in the endosome.**
Bianca Plouffe (Invited speaker)
12 Jun 2018
Activity: Talk or presentation types › Public lecture/debate/seminar

**Seminar Series - Medical School, University of Nottingham (U.K.) - GPCR, G protein and b-arrestin: three dancers dancing together in the endosome.**
Bianca Plouffe (Invited speaker)
04 Jun 2018
Activity: Talk or presentation types › Public lecture/debate/seminar

**Seminar Series - Dept. of Medicinal Chemistry, Virginia Commonwealth University (USA) - GPCR, G protein and b-arrestin: three dancers dancing together in the endosome.**
Bianca Plouffe (Invited speaker)
24 May 2018
Activity: Talk or presentation types › Public lecture/debate/seminar

**Experimental Biology 2018 (USA)**
Bianca Plouffe (Participant)
21 Apr 2018 → 25 Apr 2018
Activity: Participating in or organising an event types › Participation in conference

2017

**18th GPCR Retreat 2017 (Canada)**
Bianca Plouffe (Participant)
19 Oct 2017 → 21 Oct 2017
7th Scientific Day of the Institute for Research in Immunology and Cancer, University of Montreal (Canada) - Human melatonin type 2 receptor structural insights revealed by natural variants
Bianca Plouffe (Invited speaker)
26 May 2017
Activity: Talk or presentation types › Invited or keynote talk at national or international conference

Molecular Pharmacology Gordon Research Seminars (Italy) - Human melatonin type 2 receptor structural insights revealed by natural variants
Bianca Plouffe (Invited speaker)
12 Mar 2017
Activity: Talk or presentation types › Invited or keynote talk at national or international conference

2016

17th GPCR Retreat (USA)
Bianca Plouffe (Participant)
Activity: Participating in or organising an event types › Participation in conference

2015

Institute for Research in Immunology and Cancer Student Recruitment Event (Canada)
Bianca Plouffe (Participant)
18 Jun 2015 → 21 Jun 2015
Activity: Participating in or organising an event types › Participation in Festival/Exhibition

Seminar Series - Institute for Research in Immunology and Cancer, University of Montreal (Canada) - Do you have a bias? GPCRs do!
Bianca Plouffe (Invited speaker)
24 Apr 2015
Activity: Talk or presentation types › Public lecture/debate/seminar
MELA-BETES Joint Translational Call Meeting (France) - Analysis of the human melatonin transduction system using BRET-based biosensors
Bianca Plouffe (Invited speaker)
20 Mar 2015
Activity: Talk or presentation types › Invited or keynote talk at national or international conference

2014

ASCEPT-MPGPCR Joint Scientific Meeting (Australia)
Bianca Plouffe (Participant)
07 Dec 2014 → 11 Dec 2014
Activity: Participating in or organising an event types › Participation in conference

15th GPCR Retreat (Canada)
Bianca Plouffe (Participant)
02 Oct 2014 → 04 Oct 2014
Activity: Participating in or organising an event types › Participation in conference

MELA-BETES Joint Translational Call Meeting (Germany) - Analysis of the human melatonin transduction system using BRET-based biosensors
Bianca Plouffe (Invited speaker)
23 Jun 2014
Activity: Talk or presentation types › Invited or keynote talk at national or international conference

2013

MELA-BETES Joint Translational Call Meeting (Canada) - Functional analysis of the human melatonin transmission system using biosensors
Bianca Plouffe (Invited speaker)
03 Oct 2013
Activity: Talk or presentation types › Invited or keynote talk at national or international conference

XXVile Symposium Groupe d’étude des protéines membranaires (Canada)
Bianca Plouffe (Participant)
Jun 2013
Activity: Participating in or organising an event types › Participation in conference

Molecular Pharmacology Gordon Research Conference (Italy)
Bianca Plouffe (Participant)
21 Apr 2013 → 26 Apr 2013
Activity: Participating in or organising an event types › Participation in conference

2012

MELA-BETES Joint Translational Call Meeting (Germany) - Functional analysis of the human melatonin transmission system; new candidates involved in Type 2 Diabetes (T2D)
Bianca Plouffe (Invited speaker)
21 Dec 2012
Activity: Talk or presentation types › Invited or keynote talk at national or international conference

2010

11th GPCR Retreat (Canada)
Bianca Plouffe (Participant)
Jun 2010
Activity: Participating in or organising an event types › Participation in conference
2nd Annual Brain Health Research Day (Canada)
Bianca Plouffe (Participant)
Jun 2010
Activity: Participating in or organising an event types › Participation in conference

2009

1st Annual Brain Health Research Day (Canada)
Bianca Plouffe (Participant)
Jun 2009
Activity: Participating in or organising an event types › Participation in conference

Molecular Pharmacology Gordon Research Conference (Italy)
Bianca Plouffe (Participant)
31 May 2009 → 05 Jun 2009
Activity: Participating in or organising an event types › Participation in conference

2008

9th GPCR Retreat (Canada)
Bianca Plouffe (Participant)
Oct 2008
Activity: Participating in or organising an event types › Participation in conference

Experimental Biology 2008 (USA)
Bianca Plouffe (Participant)
05 Apr 2008 → 09 Apr 2008
Activity: Participating in or organising an event types › Participation in conference

2007

11th Annual Y.D. Lapierre Resident Research Day, University of Ottawa (Canada)
Bianca Plouffe (Participant)
Dec 2007
Activity: Participating in or organising an event types › Participation in conference

8th GPCR Retreat
Bianca Plouffe (Participant)
27 Sep 2007 → 29 Sep 2007
Activity: Participating in or organising an event types › Participation in conference

2006

10th Annual Y.D. Lapierre Resident Research Day (Canada), University of Ottawa (Canada)
Bianca Plouffe (Participant)
Dec 2006
Activity: Participating in or organising an event types › Participation in conference

7th GPCR Retreat (USA)
Bianca Plouffe (Participant)
Oct 2006
Activity: Participating in or organising an event types › Participation in conference
2005

7e Journée Scientifique de l’Équipe de Physiopathologie Endocrinienne (Canada) - Rôle du récepteur TrkA dans la signalisation induite par le récepteur AT2 de l’angiotensine II
Bianca Plouffe (Invited speaker)
May 2005
Activity: Talk or presentation types › Oral presentation

2004

32e Colloque de la Société de Neuroendocrinologie (France)
Bianca Plouffe (Participant)
Sep 2004
Activity: Participating in or organising an event types › Participation in conference

6e Journée Scientifique de l’Équipe de Physiopathologie Endocrinienne (Canada) - L’élongation neuritique induite par le récepteur AT2 de l’angiotensine II est médieée par la transactivation du récepteur NGF
Bianca Plouffe (Invited speaker)
Sep 2004
Activity: Talk or presentation types › Oral presentation